


**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY
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Subject: Guidance Memo No. 08-2005
Implementation Guidance for Reissuance of VPDES General Permit VAG25 -
VPDES General Permit for Cooling Water Discharges, 9 VAC 25-196

TO: Regional Directors

FROM: Ellen Gilinsky, Ph.D., Director 

DATE: May 1, 2008

COPIES: James Golden, Rick Weeks, Regional Water Permit Managers, Regional Water Compliance Managers

Summary:

On December 4, 2007, the State Water Control Board adopted amendments to the VPDES Cooling Water General Permit Regulation, 9 VAC 25-196, that allowed the reissuance of the Cooling Water general permit, VAG25. The adopted regulation became effective on February 6, 2008. Subsequent to the adoption, several errors were found in the regulation. The Board adopted amendments to correct the errors on April 10th, and they are expected to become effective on June 11, 2008.

The new general permit became effective on March 2, 2008, and will expire on March 1, 2013. The purpose of this guidance is to identify the changes that have been made in the reissued general permit and to provide DEQ staff with implementation procedures. The current VPDES General Permit VAG25 expired on March 1, 2008. All facilities currently permitted under VAG25 must submit a registration statement and \$600 fee to be permitted under the amended general permit. This guidance replaces Guidance Memo No. 03-2009.

Please note that this guidance continues the requirements included in the previous implementation guidance for additional action regarding evaluation of monitoring, inspection, and compliance data/information at the facility during the permit term.

Electronic Copy:

An electronic copy of this guidance in PDF format is available for staff internally on DEQNET, and for the general public on DEQ's website at:
www.deq.virginia.gov/waterguidance/permits.html.

Contact information:

Please contact Burt Tuxford, Office of Water Permits and Compliance Assistance, at (804) 698-4086 or burtuxford@deq.virginia.gov with any questions regarding the application of this guidance.

Disclaimer:

This document is provided as guidance and, as such, sets forth standard operating procedures for the agency. However, it does not mandate any particular method nor does it prohibit any particular method for the analysis of data, establishment of a wasteload allocation, or establishment of a permit limit. If alternative proposals are made, such proposals should be reviewed and accepted or denied based on their technical adequacy and compliance with appropriate laws and regulations.

Implementation Guidance for the Reissuance of VPDES General Permit VAG25 – VPDES General Permit for Cooling Water Discharges

1. Introduction

On December 4, 2007, the State Water Control Board adopted amendments to the VPDES Cooling Water General Permit Regulation, 9 VAC 25-196, that allowed the reissuance of the Cooling Water general permit, VAG25. The adopted regulation became effective on February 6, 2008. Subsequent to the adoption, several errors were found in the regulation. The Board adopted amendments to correct the errors on April 10th, and they are expected to become effective on June 11, 2008. The corrections are discussed in Section 2 below. The new general permit became effective on March 2, 2008, and will expire on March 1, 2013.

The purpose of this guidance is to identify the changes that have been made in the reissued general permit and to provide DEQ staff with implementation procedures. A copy of the adopted regulation (with corrections as noted above), the final version of the fact sheet, the general permit, the registration statement, including instructions, and example letters are attached. These documents are also available in electronic format on DEQNET. This guidance replaces Guidance Memo 03-2009.

2. Changes to the Regulation and General Permit

The significant changes to the regulation and general permit are as follows:

- a. Changed the title of the regulation to "General Virginia Pollutant Discharge Elimination System (VPDES) Permit For NonContact Cooling Water Discharges of 50,000 Gallons Per Day or Less" to indicate the coverage restrictions.
- b. Changed both the Registration Statement item #6, and permit Special Condition #3 to require either an engineering analysis, or a technical evaluation of the active ingredients of the chemical additives proposed to be used, to determine the concentration in the discharge. Previously the regulation only required an estimate of the concentration in the discharge.
- c. Clarified Footnote #3 of the permit Part I, Effluent Limitations and Monitoring Requirements section to indicate that the ammonia monitoring only applies where the source of the cooling water is disinfected using chloramines.
- d. Added permit Special Condition item #7 to allow a permittee to apply for reduced monitoring if they have a geothermal system using groundwater and no chemical additives, and their monitoring data shows they are in full compliance with their effluent limitations. The Department must authorize the reduced monitoring, and any subsequent enforcement action will require the permittee to resume the full permit monitoring requirements.

April 2008 Corrections to the Regulation and General Permit

This regulation was adopted by the Water Control Board on December 4, 2007. Subsequent to the adoption, errors were found in Section 9 VAC 25-196-70 (General Permit) in the Part I.A (Effluent Limitations and Monitoring Requirements) table footnotes. The errors and the corrections are as follows:

- a. Footnote (4) - Method Corrections: EPA updated the 40 CFR Part 136 Test Procedures rule on March 12, 2007. This update contains new and revised analytical methods for some of the methods specified in this regulation. To conform to the federal methods changes, the

following changes were made: for Copper, deleted EPA Methods 220.1 and 220.2; for Zinc, deleted EPA Method 289.1; and for Silver, deleted EPA Methods 272.1 and 272.2.

b. Footnote (3) - Typo Correction: Changed "*...and chlorine monitoring only applies...*" to "*...and chlorine monitoring only apply...*".

c. Footnote (6) - Typo Corrections: Changed "*phosphorous*" to "*phosphorus*" (2 instances).

3. Evaluation of DMR Data for Facilities Currently Permitted

The cooling water general permit requires several parameters to be monitored, but it includes no effluent limitations for these parameters.

In the fall of 2002, during the adoption process for the 2003 Cooling Water GP reissuance, an issue regarding the general permit's adequacy was brought forth by staff. This occurred after the draft general permit was developed, approved by EPA, and subjected to public comment and public hearing as authorized by the State Water Control Board in accordance with standard regulatory development and permit reissuance protocols. A review of a limited amount of data received from a select number of facilities registered under the general permit indicated exceedances of the water quality criteria for metals, particularly copper and zinc. A further review of DMR data reviewed by the Office of Water Permit Programs (now the Office of Water Permits and Compliance Assistance) for 19 facilities indicated that 11 suggest recurring violations of Virginia's copper criteria in the effluent. However, the data set reviewed for the vast majority of facilities was small, and the metals data for at least some of the data collected was found to be invalid.

Pursuant to the data review performed, the decision was made to proceed with issuance of the general permit. However, specific recommendations were made based on the results of the review. The recommendations that were made are documented in the memorandum, "VPDES General Permit for Cooling Water Discharges", Jon van Soestbergen to Martin Ferguson, November 18, 2002 (included as Attachment H of this guidance). The recommendations as set forth in the referenced memorandum were incorporated into the previous guidance (GM03-2009), and are continued in this issuance of the permit and guidance. Additional recommendations have been included for this reissuance.

An analysis of the available facility cooling water effluent monitoring data should be performed prior to permit reissuance to determine (1) whether the data is adequate, and (2) whether an effluent limit is necessary for the individual facility. If it is determined that an effluent limit for a parameter monitored but not limited in the general permit is necessary, the regional office should contact the facility and inform the permittee (1) of the conclusion and its basis, and (2) that the permittee must apply for an individual permit for the discharge, or connect to the sanitary sewer (if available/allowed).

If the data are inconclusive, but the regional staff have concerns about the water quality from the cooling water discharges from a facility, then a stepped approach is necessary.

The regional office needs to visit/inspect the facility (probably the permit writer along with a DEQ inspector) to see what they are doing that is causing the water quality violations. Could be the chemicals they are using/improper dosing of chemicals or some other issue. Need to discuss with the facility possible solutions to the problem. If the problem continues, or there is no solution to the problem, then the facility needs to either: (1) connect to the sanitary sewer (if available/allowed); or, (2) get an individual VPDES permit and treat the discharges to meet the permit effluent limits.

4. Coverage and Restrictions

The general permit is applicable to discharges of noncontact cooling water either directly to surface waters or indirectly to surface waters through a municipal separate storm sewer system (MS4), subject to the following restrictions:

- a. The discharge can not exceed 50,000 gallons per day;
- b. The owner has not been required to obtain an individual permit;
- c. No discharges are allowed to Class V stockable trout waters, Class VI natural trout waters, or any state waters specifically named in other board regulations or policies which prohibit such discharges (see the Water Quality Standards at 9 VAC 25-260-310);
- d. No chlorine or any other halogen compound may be used for disinfection or other treatment purposes, including biocide applications, for any discharges to waters containing endangered species as identified in the Water Quality Standards at 9 VAC 25-260-110 C;
- e. No tributyltin or any chemical additives containing tributyltin, nor any hexavalent-chromium based water treatment chemicals may be used in the cooling water systems; and
- f. The owner may not use groundwater remediation wells as the source of cooling water.

5. Registration Statements, Application Fee and Fee Forms

The Registration Statement and instructions are included with this guidance as Attachment D, and are also available on DEQNet. The Registration Statement has changed slightly for this reissuance. The major change is the requirement for either an engineering analysis, or a technical evaluation of the active ingredients of the chemical additives proposed to be used, to determine the concentration in the discharge. This is item 6.d of the regulation Registration Statement (section 9 VAC 25-196-60), and item B.4.d of the reformatted Registration Statement form (see attachment D). Previously the registration statement only required an estimate of the concentration in the discharge.

Permittees may not use registration statements from previous general permit cycles to apply for coverage under this general permit. Registration statements, fee forms, and fees must be received as follows:

a. Affected facilities

Discharges that were covered by the 2003 Cooling Water General Permit VAG25 must submit a registration statement in order to continue coverage under the reissued permit. Registration statements from these facilities should have been received prior to March 2, 2008 to ensure continued coverage of the discharge under the general permit. See Section 3 for monitoring data evaluation requirements of discharges covered by the 2003 Cooling Water General Permit which expired March 1, 2008.

Qualifying new discharges must submit a registration statement prior to commencing discharge in order to obtain coverage under the general permit.

Qualifying existing facilities that currently discharge without a permit to surface waters or to an MS4 must submit a registration statement in order to obtain coverage under the general permit.

Qualifying facilities that currently discharge cooling water under an individual VPDES permit can apply for coverage under the general permit. It is preferable that such application be

timed to coincide with the expiration of the individual permit. However, a discharger can also request that the facility's individual permit be revoked so that the discharge can be covered under the general permit.

b. On-line registration

On-line registration for coverage under this general permit is not available at this time.

c. Application Fee

The fee for registration under this general permit is \$600, regardless of when permit coverage is granted. Fees for coverage under general permits are no longer prorated.

c. Registration statement and fee submittal

Original signed registration statements must be submitted to the regional office that serves the area where the discharge takes place. A copy of the fee form and a copy of the applicant's check must accompany the registration statement. The original fee form and check must be submitted to Receipts Control at the DEQ Central Office. A copy of the latest fee form, which includes the new address for Receipts Control, is provided with this guidance as Attachment E.

6. Issuance of the General Permit to a Discharger

Once it is determined from the registration statement that a facility qualifies for coverage under the permit, the general permit pages can be prepared. The general permit pages are included with this guidance as Attachment C, and are also available on DEQNet. The pages include the corrections which the Board adopted in April, and which are scheduled to become effective on June 11, 2008. The cover page, printed on agency letterhead, appropriate Part I.A effluent limits pages (make sure all the outfalls are covered), Part I.B special conditions, and Part II permit boilerplate should be assembled. Please note that the permit number must be added to the permit pages, including the cover page, before the permit is mailed to the permittee. For existing permitted facilities, the permit number will be the same one that was used for the previous issuance. For new facilities, the permit number will be generated by CEDS when the facility is entered into the system. The appropriate outfall number must be added at the end of the first sentence on each Part I.A effluent limits page. More than one outfall number may be listed on the applicable limitations page. Remember to do a final Part I page count and correct the Part I page numbers if necessary. The pages of Part II are already numbered. No other changes to the language of the general permit are authorized.

The general permit requires quarterly monitoring and reporting (for geothermal systems, see Section 7 below). Therefore, Discharge Monitoring Reports (DMR) are necessary for reporting and compliance tracking. DMRs should be prepared to reflect the applicable effluent limitations and monitoring requirements for each outfall addressed in Part I.A of the permit.

Attachment G contains an example transmittal letter that can be used to transmit the permit and DMRs to the permittee. If the permit coverage is issued before the April corrections become effective on June 11th, be sure to include the additional language shown in brackets in the letter. Do not copy DEQ Central Office or EPA on individual coverage issued under the general permit. Note that transmittal letters for coverage under a general permit do not contain the two paragraphs referencing the owner's right to appeal the decision to cover them under the permit. The transmittal letter should indicate when DMRs are due (see Section 10) and where the DMRs are to be sent.

7. Geothermal Systems Using Groundwater and No Chemical Additives

A special condition has been added to the permit which allows a permittee to apply for reduced monitoring if they have a geothermal system using groundwater and no chemical additives, and their monitoring data shows they are in full compliance with their effluent limitations.

The special condition states:

- a. If a geothermal system was covered by the previous cooling water general permit, and the monitoring results from the previous permit term demonstrate full compliance with the effluent limitations, the permittee may request authorization from the department to reduce the monitoring to once in the first monitoring quarter of the first year of this permit term.
- b. Owners of new geothermal systems, and previously unpermitted geothermal systems that receive coverage under this permit shall submit monitoring results to the department for the first four monitoring quarters after coverage begins. If the monitoring results demonstrate full compliance with the effluent limitations, the permittee may request authorization from the department to suspend monitoring for the remainder of the permit term.
- c. Should the permittee be issued a warning letter related to violation of effluent limitations, a notice of violation, or be the subject of an active enforcement action, upon issuance of the letter or notice, or initiation of the enforcement action the monitoring frequency shall revert to 1/3 months and remain in effect until the permit's expiration date.

The permittee should send a written request to suspend the monitoring to the appropriate regional office for review. The request should be granted only if there have been no effluent violations for the facility. The regional office should send written notification of the approval or denial of the request. If the request is approved CEDS should be updated to reflect the change in monitoring.

Should the permittee be issued a warning letter related to violation of effluent limitations, a notice of violation, or be the subject of an active enforcement action, the monitoring frequency will revert back to once per quarter upon issuance of the letter or notice or initiation of the enforcement action, and will remain in effect until the permit's expiration date. If this happens, the regional office should send written notification to the permittee, the letter should be accompanied by a DMR, and CEDS should be updated to reflect the resumed sampling.

8. Termination of Coverage and Change of Ownership

If an owner requests termination of coverage under the general permit the regional office can terminate coverage under regional letterhead.

If there is a request for change of ownership, then the new owner assumes the coverage under the general permit and the permit number does not change. The new owner may submit a new registration statement, but it is not required. Part II.Y of the permit allows for automatic transfer of ownership if the 30 day prior notice and the required written agreement between the new and old owners are provided. The other change of ownership requirements and procedures in the VPDES Permit Regulation and VPDES Permit Manual that are common to all VPDES permits apply to this general permit as well. Any change of status should be noted in CEDS.

9. Unpermitted Discharges

The recommendation relative to unpermitted cooling water discharges from the November 18, 2002 memorandum are continued for this reissuance. There is a high probability that many

cooling water discharges in the Commonwealth remain unpermitted, especially in municipalities with regulated MS4s.

Regional offices should make reasonable effort to identify unpermitted cooling water discharges and pursue coverage for these facilities under this general permit. Efforts to comply with this recommendation should be documented by regional water programs management.

The NPDES MS4 storm water permitting program is now under the Department of Conservation and Recreation (DCR). If unpermitted cooling water discharges to an MS4 are identified by the MS4 operator as illicit discharges, these will need to be permitted by DEQ under either this general permit or an individual permit.

10. Compliance Reporting

DMRs are due on the tenth of January, April, July, and October. Tracking of compliance with the effluent limits and other requirements of the permit should be done according to the Compliance Auditing System already established. Reporting requirements for noncompliance, unusual or extraordinary discharges, etc. are the same as for individual permits.

DMR data should be entered into CEDS in a timely manner to assist both the regional office and OWPCA with data analysis.

11. Inspection of Facilities Covered

Facilities covered under this general permit are subject to the requirements for the industrial minor/small category of facilities as set forth in DEQ's inspection strategy. As such, they should be inspected at least once every five years. The inspection should verify the chemical and/or non-chemical treatment employed, check for overflows and condition of the cooling equipment which may indicate poor operation and maintenance, and verify the discharge points, either to MS4s or directly to surface waters. An inspection log maintained on site which records at least once per year inspection performed by the facility personnel should also be checked at the time of inspection.

The specific recommendations relative to inspections from the November 18, 2002 memorandum are continued for this reissuance. To increase the confidence level in data collected and submitted to DEQ as required under this permit, it is recommended that sampling inspections be performed at all the facilities registered under the general permit, and that the laboratories performing the analyses for the permitted facilities be inspected at least once during the permit term. These inspections should be performed as soon as feasible after coverage is issued under the new permit in order to correct deficiencies identified during the inspection(s).

Copies of inspection records should be submitted to the Inspections Group of the OWPCA.

12. Monitoring Data Review

The monitoring data review recommendations from the November 18, 2002 memorandum are continued for this reissuance. Two years prior to the expiration of this general permit (i.e., Spring 2011), the OWPCA should analyze the DMR data from all permitted facilities, and from permitted facilities where the water source is a municipal water supply system, to determine the following:

- a. Is a general permit still appropriate for cooling water discharges?
- b. Should facilities whose source water is from a municipal water supply system be excluded from coverage under the general permit?

- c. Are additional effluent limitations needed in the general permit for all facilities or a subset of facilities?

Regional offices should ensure that all relevant monitoring records are maintained and entered into CEDS in a timely manner so that the data can be extracted for analysis by OWPCA staff.

13. Record Keeping and Audit

Tracking of coverage under this general permit will be in CEDS. It is important that CEDS is kept updated with relevant information pertaining to the general permit, and this information is subject to audit. Database information must include, but is not limited to, facilities registered under the permit, permittees' contact information, outfall information, and permit numbers.

Hard copy files that must be retained and are subject to audit include, but are not limited to, the following:

- a. A copy of the registration statement and information required by the registration statement;
- b. A record of the evaluation of DMR monitoring data used to determine eligibility for continued coverage under this general permit;
- c. A copy of the general permit and DMR(s) sent to the permittee;
- d. Copies of all inspection reports related to the discharge;
- e. Copies of monitoring data DMRs submitted; and
- f. Regional water program efforts to identify and pursue coverage for unpermitted cooling water discharges as recommended under Section 9 of this guidance.

Attachments:

- A. Regulation
- B. Fact Sheet
- C. General Permit
- D. Registration Statement and Instructions
- E. Fee Form
- F. Example Registration Statement Transmittal Letter
- G. Example Transmittal Letter for General Permit Issuance
- H. November 18, 2002 Memorandum, "VPDES General Permit for Cooling Water Discharges"

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Attachment A

**GENERAL VPDES PERMIT REGULATION FOR
NONCONTACT COOLING WATER DISCHARGES
OF 50,000 GPD OR LESS (9 VAC 25-196)**

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9VAC25- 196 - GENERAL VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES) PERMIT FOR NONCONTACT COOLING WATER DISCHARGES OF 50,000 GALLONS PER DAY OR LESS

[Adopted: December 4, 2007; Effective: February 6, 2008]

NOTE: There are corrections shown in this version of the regulation to the Permit Part I.A section (Effluent Limitations and Monitoring Requirements). These changes are not final and are shown for informational purposes only. The corrections were adopted by the State Water Control Board on April 10, will be published in the Virginia Register on May 12, and are expected to become effective on June 11, 2008.

9VAC25-196-10. Definitions.

The words and terms used in this chapter shall have the meanings defined in §62.1-44.2 et seq. of the Code of Virginia (State Water Control Law), and 9VAC25-31-10 et seq. (VPDES Permit Regulation) unless the context clearly indicates otherwise, except that for the purposes of this chapter:

"Blowdown" means a discharge of recirculating water from any cooling equipment or cooling process in order to maintain a desired quality of the recirculating water. Boiler blowdown is excluded from this definition.

"Cooling water" means water used for cooling which does not come into direct contact with any raw product, intermediate product (other than heat) or finished product. For the purposes of this general permit, cooling water can be generated from any cooling equipment blowdown or produced as a result of any noncontact cooling process through either a single pass (once through) or recirculating system.

"Department" means the Virginia Department of Environmental Quality.

"Director" means the Director of the Virginia Department of Environmental Quality, or an authorized representative.

9VAC25-196-20. Purpose.

This general permit regulation governs point source discharges of noncontact cooling water of 50,000 gallons per day or less to surface waters.

9VAC25-196-30. Delegation of authority.

The director, or an authorized representative, may perform any act of the board provided under this chapter, except as limited by §62.1-44.14 of the Code of Virginia.

9VAC25-196-40. Effective date of the permit.

This general permit will become effective on March 2, 2008. This general permit will expire five years from the effective date. This general permit is effective as to any covered owner upon compliance with all the provisions of 9VAC25-196-50 and the receipt of this general permit.

9VAC25-196-50. Authorization to discharge.

A. Any owner governed by this general permit is hereby authorized to discharge to surface waters of the Commonwealth of Virginia provided that the owner files and receives acceptance by the board of the registration statement of 9VAC25-196-60, files the required permit fee, complies with the effluent limitations and other requirements of 9VAC25-196-70, and provided that:

1. The owner has not been required to obtain an individual permit according to 9VAC25-31-170 B 3.
2. The owner shall not discharge to Class V stockable trout waters, Class VI natural trout waters, or any state waters specifically named in other board regulations or policies which prohibit such discharges. Chlorine or any other halogen compounds shall not be used for disinfection or other treatment purposes, including biocide applications, for any discharges to waters containing endangered or threatened species as identified in 9VAC25-260-110 C of the Water Quality Standards.

3. The owner shall neither use tributyltin and any chemical additives containing tributyltin, nor use any hexavalent chromium-based water treatment chemicals in the cooling water systems.
4. The owner shall not use groundwater remediation wells as the source of cooling water.

B. Receipt of this general permit does not relieve any owner of the responsibility to comply with any other federal, state or local statute, ordinance or regulation.

9VAC25-196-60. Registration statement.

The owner shall file a complete general VPDES permit registration statement for cooling water discharges. Any owner proposing a new discharge shall file a complete registration statement at least 30 days prior to the date planned for commencing operation of the new discharge. Any owner of an existing discharge covered by an individual VPDES permit who is proposing to be covered by this general permit shall file the registration statement at least 180 days prior to the expiration date of the individual VPDES permit. Any owner of an existing discharge not currently covered by a VPDES permit who is proposing to be covered by this general permit shall file a complete registration statement. The required registration statement shall contain the following information:

1. Facility name and address, owner name and mailing address and telephone number;
2. Operator name, mailing address, and telephone number if different from owner;
3. Does the facility currently have a VPDES permit? Permit Number if yes;
4. Listing of point source discharges that are not composed entirely of cooling water;
5. Listing of type and size (tons) of cooling equipment or noncontact cooling water processes;
6. The following information if any chemical or nonchemical treatment, or both, is employed in each of the cooling water systems:
 - a. Description of the chemical or nonchemical treatment, or both, to be employed and its purpose; for chemical additives other than chlorine, provide the information prescribed in subdivisions 6 b, c, d, e and f;
 - b. Name and manufacturer of each additive used;
 - c. List of active ingredients and percent composition;
 - d. Proposed schedule and quantity of chemical usage, and either an engineering analysis, or a technical evaluation of the active ingredients, to determine the concentration in the discharge;
 - e. Available aquatic toxicity information for each proposed additive used; and
 - f. Any other information such as product or constituent degradation, fate, transport, synergies, bioavailability, etc., that will aid the board with the toxicity evaluation of the discharge.
7. Description of any type of treatment or retention being provided to the wastewater before discharge (i.e. retention ponds, settling ponds, etc.)
8. A schematic drawing of the cooling water equipment that shows the source of the cooling water, its flow through the facility, and each cooling water discharge point.
9. For cooling waters with a direct discharge to surface waters, a topographic map extending to at least one mile beyond the property boundary. The map must show the outline of the facility and the location of each of its existing and proposed intake and discharge points, and must include all springs, rivers and other surface water bodies.
10. The following discharge information:
 - a. A listing of all cooling water discharges by a unique number;
 - b. The source of cooling water for each discharge;
 - c. An estimate of the maximum daily flow in gallons per day for each discharge;

- d. The name of the waterbody receiving direct discharge or discharge through the municipal separate storm sewer system;
- e. The duration and frequency of the discharge for each separate discharge point; continuous, intermittent, or seasonal;
- f. The name and contact information of the owner of the municipal separate storm sewer system that receives the discharge, if applicable.

11. The following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

The registration statement shall be signed in accordance with 9VAC25-31-110.

9VAC25-196-70. General permit.

Any owner whose registration statement is accepted by the board will receive the following permit and shall comply with the requirements therein and be subject to all requirements of 9VAC25-31.

General Permit No: VAG25
Effective Date: March 2, 2008
Expiration Date: March 1, 2013

**GENERAL PERMIT FOR NONCONTACT COOLING WATER DISCHARGES OF 50,000 GALLONS
PER DAY OR LESS**

**AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA POLLUTANT DISCHARGE
ELIMINATION SYSTEM AND THE VIRGINIA STATE WATER CONTROL LAW**

In compliance with the provisions of the Clean Water Act, as amended, and pursuant to the State Water Control Law and regulations adopted pursuant thereto, owners of noncontact cooling water discharges of 50,000 gallons per day or less are authorized to discharge to surface waters within the boundaries of the Commonwealth of Virginia, except Class V stockable trout waters, Class VI natural trout waters, and those specifically named in board regulations or policies which prohibit such discharges. Chlorine or any other halogen compounds shall not be used for disinfection or other treatment purposes, including biocide applications, for any discharges to waters containing endangered or threatened species as identified in 9VAC25-260-110 C of the Water Quality Standards.

The authorized discharge shall be in accordance with this cover page, Part I—Effluent Limitations and Monitoring Requirements, and Part II—Conditions Applicable to all VPDES Permits, as set forth herein.

Part I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS.

During the period beginning on the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge noncontact cooling water. Samples taken in compliance with the monitoring requirements specified below shall be taken at the following location(s): outfall(s):

_____.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS	MONITORING REQUIREMENTS
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	Maximum	Minimum	Frequency	Sample Type
Flow (MGD)	0.05	NA	1/3 Months	Estimate
Temperature (°C)	⁽¹⁾	NA	1/3 Months	Immersion Stabilization
pH (SU)	9 ⁽²⁾	6 ⁽²⁾	1/3 Months	Grab
Ammonia-N ⁽³⁾ (mg/l)	NL	NA	1/3 Months	Grab
Total Residual Chlorine ⁽³⁾ (mg/l)	Nondetectable	NA	1/3 Months	Grab
Hardness (mg/l CaCO ₃)	NL	NA	1/3 Months	Grab
Total Dissolved Copper ⁽⁴⁾ (µg/l)	NL	NA	1/3 Months	Grab
Total Dissolved Zinc ⁽⁴⁾ (µg/l)	NL	NA	1/3 Months	Grab
Total Dissolved Silver ^{(4), (5)} (µg/l)	NL	NA	1/3 Months	Grab
Total Phosphorus ⁽⁶⁾ (mg/l)	NL	NA	1/3 Months	Grab

NL = No limitation, monitoring required

NA = Not applicable

⁽¹⁾ The effluent temperature shall not exceed a maximum 32°C for discharges to nontidal coastal and piedmont waters, or 31°C for mountain and upper piedmont waters. No maximum temperature limit, only monitoring, applies to discharges to estuarine waters.

The effluent shall not cause an increase in temperature of the receiving stream of more than 3°C above the natural water temperature. The effluent shall not cause the temperature in the receiving stream to change more than 2°C per hour. Natural temperature is defined as that temperature of a body of water (measured as the arithmetic average over one hour) due solely to natural conditions without the influence of any point-source discharge.

⁽²⁾ Where the Water Quality Standards (9VAC25-260) establish alternate standards for pH in the waters receiving the discharge, those standards shall be the maximum and minimum effluent limitations.

⁽³⁾ Chlorine limitation of nondetectable (<0.1 mg/l) and chlorine monitoring only ~~applies~~ apply to outfalls directly discharging to surface waters where the source of cooling water is chlorinated. Ammonia monitoring only applies where the source of cooling water is disinfected using chloramines.

⁽⁴⁾ A specific analysis is not specified for these materials. An appropriate analysis shall be selected from the following list of EPA methods to achieve a quantification level that is less than the target level for the material under consideration:

Material	EPA Method	Target Level (µg/l)
Copper	220.1, 220.2, 200.7, 200.8, 200.9, 1638, 1640	9.2
Zinc	289.1, 289.2, 200.7, 200.8, 1638, 1639	65.0
Silver	272.1, 272.2, 200.7, 200.8, 200.9, 1638	1.2

Quality control/assurance information shall be submitted to document that the required quantification level has been attained.

⁽⁵⁾ Silver monitoring is only required where Cu/Ag anode is used.

⁽⁶⁾ ~~Phosphorous~~ Phosphorus monitoring is only required where additive containing ~~phosphorous~~ phosphorus is used.

B. Special conditions.

1. There shall be no discharge of floating solids or visible foam in other than trace amounts.

2. No discharges other than cooling water, as defined, are permitted under this general permit.
3. The use of any chemical additives not identified in the registration statement, except chlorine, without prior approval is prohibited under this general permit. Prior approval shall be obtained from the DEQ before any changes are made to the chemical and/or nonchemical treatment technology employed in the cooling water system. Requests for approval of the change shall be made in writing and shall include the following information:
 - a. Describe the chemical and/or nonchemical treatment to be employed and its purpose; if chemical additives are used, provide the information prescribed in subdivisions 3 b, c, d, e and f;
 - b. Provide the name and manufacturer of each additive used;
 - c. Provide a list of active ingredients and percentage of composition;
 - d. Give the proposed schedule and quantity of chemical usage, and provide either an engineering analysis, or a technical evaluation of the active ingredients, to determine the concentration in the discharge;
 - e. Attach available aquatic toxicity information for each additive proposed for use; and
 - f. Attach any other information such as product or constituent degradation, fate, transport, synergies, bioavailability, etc., that will aid the board with the toxicity evaluation for the discharge.
4. Where cooling water is discharged through a municipal storm sewer system to surface waters, the permittee shall, within 30 days of coverage under this general permit, notify the owner of the municipal separate storm sewer system of the existence of the discharge and provide the following information: the name of the facility, a contact person and phone number, nature of the discharge, number of the outfalls, and the location of the discharge. A copy of such notification shall be provided to the department.
5. The permittee shall at all times properly operate and maintain all cooling water systems. Inspection shall be conducted for each cooling water unit by the plant personnel at least once per year with reports maintained on site.
6. The permittee shall notify the department as soon as they know or have reason to believe:
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - (1) One hundred micrograms per liter (100 µg/l);
 - (2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; 500 micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five times the maximum concentration value reported for that pollutant in the permit application; or
 - (4) The level established by the board in accordance with 9VAC25-31-220 F.
 - b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - (1) Five hundred micrograms per liter (500 µg/l);
 - (2) One milligram per liter (1 mg/l) for antimony;
 - (3) Ten times the maximum concentration value reported for that pollutant in the permit application; or
 - (4) The level established by the board in accordance with 9VAC25-31-220 F.

7. Geothermal systems using groundwater and no chemical additives. Geothermal systems using groundwater and no chemical additives may be eligible for reduced monitoring requirements.

If a geothermal system was covered by the previous cooling water general permit, and the monitoring results from the previous permit term demonstrate full compliance with the effluent limitations, the permittee may request authorization from the department to reduce the monitoring to once in the first monitoring quarter of the first year of this permit term.

Owners of new geothermal systems, and previously unpermitted geothermal systems that receive coverage under this permit shall submit monitoring results to the department for the first four monitoring quarters after coverage begins. If the monitoring results demonstrate full compliance with the effluent limitations, the permittee may request authorization from the department to suspend monitoring for the remainder of the permit term.

Should the permittee be issued a warning letter related to violation of effluent limitations, a notice of violation, or be the subject of an active enforcement action, upon issuance of the letter or notice, or initiation of the enforcement action the monitoring frequency shall revert to 1/3 months and remain in effect until the permit's expiration date.

Part II

Conditions Applicable to All VPDES Permits

A. Monitoring.

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.
2. Monitoring shall be conducted according to procedures approved under 40 CFR Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements.

B. Records.

1. Records of monitoring information shall include:
 - a. The date, exact place and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) and time(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the registration statement for this permit, for a period of at least three years from the date of the sample, measurement, report or request for coverage. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee or as requested by the board.

C. Reporting monitoring results.

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to the department's regional office.
2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or specified by the department.
3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under 40 CFR Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the department.
4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to provide information. The permittee shall furnish to the department, within a reasonable time, any information which the board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the department upon request copies of records required to be kept by this permit.

E. Compliance schedule reports. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized discharges. Except in compliance with this permit or another permit issued by the board, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or
2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, to animal or aquatic life, to the use of such waters for domestic or industrial consumption, for recreation, or for other uses.

G. Reports of unauthorized discharges. Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II F, or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II F, shall notify the department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the department within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of unusual or extraordinary discharges. If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse effects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the department within five days of discovery of the discharge in accordance with Part II I 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. Reports of noncompliance. The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this subsection:

- a. Any unanticipated bypass; and
- b. Any upset which causes a discharge to surface waters.

2. A written report shall be submitted within five days and shall contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
- c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The board may waive the written report on a case-by-case basis for reports of noncompliance under Part II I if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Part II I 1 or 2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II I 2.

NOTE: The immediate (within 24 hours) reports required in Parts II G, H and I may be made to the department's regional office by telephone or by fax. For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24-hour telephone service at 1-800-468-8892.

J. Notice of planned changes.

1. The permittee shall give notice to the department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

(1) After promulgation of standards of performance under §306 of Clean Water Act which are applicable to such source; or

(2) After proposal of standards of performance in accordance with §306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with §306 within 120 days of their proposal;

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or

c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2. The permittee shall give advance notice to the department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory requirements.

1. Registration statements. All registration statements shall be signed as follows:

a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits, and other information requested by the board shall be signed by a person described in Part II K 1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part II K 1;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and

c. The written authorization is submitted to the department.

3. Changes to authorization. If an authorization under Part II K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II K 2 shall be submitted to the department prior to or together with any reports or information to be signed by an authorized representative.

4. Certification. Any person signing a document under Part II K 1 or 2 shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to comply. The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under §307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under §405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new registration statement at least 90 days before the expiration date of the existing permit, unless permission for a later date has been granted by the board. The board shall not grant permission for registration statements to be submitted later than the expiration date of the existing permit.

N. Effect of a permit. This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State law. Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by §510 of the Clean Water Act. Except as provided in permit conditions on bypass (Part II U) and upset (Part II V), nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and hazardous substance liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under §§62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludges. Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass.

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to ensure efficient operation. These bypasses are not subject to the provisions of Part II U 2 and U 3.

2. Notice.

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least 10 days before the date of the bypass.

b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II I.

3. Prohibition of bypass.

a. Bypass is prohibited, and the board may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Part II U 2.

b. The board may approve an anticipated bypass, after considering its adverse effects, if the board determines that it will meet the three conditions listed in Part II U 3 a.

V. Upset.

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II V 2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the permittee can identify the cause(s) of the upset;

b. The permitted facility was at the time being properly operated;

c. The permittee submitted notice of the upset as required in Part II I; and

d. The permittee complied with any remedial measures required under Part II S.

3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and entry. The permittee shall allow the director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this subsection, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit actions. Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits.

1. Permits are not transferable to any person except after notice to the department. Except as provided in Part II Y 2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.
2. As an alternative to transfers under Part II Y 1, this permit may be automatically transferred to a new permittee if:
 - a. The current permittee notifies the department at least 30 days in advance of the proposed transfer of the title to the facility or property;
 - b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 - c. The board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II Y 2 b.

Z. Severability. The provisions of this permit are severable. If any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

Attachment B

FACT SHEET

**GENERAL VPDES PERMIT FOR NONCONTACT COOLING WATER
DISCHARGES OF 50,000 GPD OR LESS (VAG25)**

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**REISSUANCE OF A GENERAL VPDES PERMIT
FOR COOLING WATER DISCHARGES**

The Virginia State Water Control Board (Board) has under consideration the reissuance of a general VPDES permit for point source discharges of cooling water to surface waters. This general permit will replace the existing general permit, VAG25, which expires March 1, 2008. Owners covered under the expiring general permit who wish to continue to discharge under a general permit must register for coverage under the new general permit.

Permit Number: VAG25

Name of Permittee: Any owner of a cooling water discharge in the Commonwealth of Virginia agreeing to be regulated under the terms of this general permit.

Facility Location: Commonwealth of Virginia

Receiving Waters: Surface waters within the boundaries of the Commonwealth of Virginia, except Class V stockable waters, Class VI natural trout waters, and those specifically named in Board Regulations or policies which prohibit such discharges. Discharge to surface waters may be through a municipal separate storm sewer system. Chlorine or any other halogen compounds shall not be used for disinfection or other treatment purposes, including biocide applications, for any discharges to waters containing endangered or threatened species as identified in 9 VAC 25-260-110 C of the Water Quality Standards.

On the basis of preliminary review and application of lawful standards and regulations, the Board proposes to reissue the general permit subject to certain conditions and has prepared a draft permit. The Board has determined that this category of discharges is appropriately controlled under a general permit. Non-contact cooling water discharges are similar in composition even though they may not be generated by a single industrial category or point source. The draft general permit requires that all covered facilities meet standardized effluent limitations and monitoring requirements.

Persons may comment in writing on the proposed permit action within 60 days from August 20, 2007. Comments should be addressed to the contact person listed below. Comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received between August 20, 2007 and 5:00 pm, October 19, 2007 will be considered by the Board.

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting Burton R. Tuxford at:

Virginia Department of Environmental Quality
P.O. Box 1105
Richmond, Virginia 23218
Tel: (804) 698-4086
Fax: (804) 698-4032
email: brtuxford@deq.virginia.gov

A public hearing on this draft permit will be held on October 3, 2007, at 10:00 am at the DEQ Piedmont Regional Office, Training Room, 4949A Cox Road, Glen Allen, VA. Notice of the public hearing will be published in Richmond Time-Dispatch and in the Virginia Register. Following the public comment period, the Board will make its determinations regarding the proposed permit action.

Activities Covered By This General Permit And Sources Of Wastewater

This general permit covers point source discharges of 50,000 gallons per day or less of non-contact cooling water and cooling equipment blowdown to surface waters. Discharge to surface waters may be through a municipal separate storm sewer system (MS4).

"Cooling Water" means water used to reduce temperature which does not come into direct contact with any raw product, intermediate product (other than heat) or finished product. For the purposes of this general permit, cooling water can be generated from any cooling equipment blowdown or produced as a result of any non-contact cooling process through either a single pass (once through) or recirculating system. "Blowdown" is a discharge of recirculating water from any cooling equipment or cooling process in order to maintain a desired quality of the recirculating water. Water which is used for cooling purposes and which commingles with a wastewater or process fluid becomes process wastewater and is not covered by this general permit. Boiler blowdown and storm water discharges are also excluded from the coverage of this general permit.

This general permit is not applicable for a category where effluent guidelines have been promulgated, such as steam electric generating stations (see 40 CFR Part 423).

The cooling water's source can be a well, surface water, or the potable water supply. The water is used in a process for cooling. The temperature control system operates so that the cooling water does not come into direct contact with the raw materials. The primary pollutant associated with cooling equipment blowdown and non-contact cooling water discharges is the heat taken up by the water. In one pass cooling water facilities, after the heat transfer has taken place, the water is discharged. Once-through cooling generates relatively large volumes of water. In most cases, the water passes through the heat exchange apparatus and is discharged without chemical additives or treatment.

Other cooling equipment, such as cooling towers, use less water because they usually operate in a recycle, rather than once-through, mode. Generally associated with air conditioning units, cooling towers are used to remove heat from a fluid by evaporating water. Water is dispersed over a media or trickled through shallow pans as air is blown over it. Evaporation cools the water down to the ambient air temperature. The cool water is then piped to a heat exchanger within the air conditioning chiller where it absorbs the heat released as Freon is condensed. The cycle is completed when the water is pumped back to the cooling tower. A certain amount of the water in the cooling equipment system must be replaced during each or several cycles in order to maintain the desired properties of the water. This type of discharge (blowdown) is usually lower in volume than the once-through cooling discharge, but it has a greater potential to contain pollutants. The reuse of water usually requires some sort of treatment to inhibit corrosion and scale build-up, to reduce biological growth, and to reduce deposition of water impurities in the system. Chemical and/or non-chemical treatment may be employed to address these problems.

Due to the concern that tributyltin compounds are not easily degradable and thus have long-lasting residual effects, and the stringent water quality standards for tributyltin (0.026 ppb in freshwater and 0.001 ppb in saltwater), discharges that use biocides containing tributyltin will be excluded from the coverage of this general permit. In addition, this general permit will not cover any cooling water discharges that use hexavalent chromium (Cr^{+6})-based water treatment chemicals in the cooling water system. This restriction is imposed based on the provision promulgated under 40 CFR Part 749 that prohibits the use of hexavalent chromium-based water treatment chemicals in comfort cooling towers (CCT's). Although CCT's are dedicated exclusively to, and are an integral part of heating, ventilation, and air conditioning (HVAC) or refrigeration systems, it is anticipated that the majority of the cooling water discharges covered by this general permit will be generated from CCT's. In order to assure compliance with the halogen ban of 9 VAC 25-260-110 of the Water Quality Standards, chlorine or any other halogen compounds are not allowed to be used for disinfection or other treatment purposes, including biocide applications, for any discharges to water containing endangered or threatened species as identified in 9 VAC 25-260-110 C of the Water Quality Standards.

Using chloramines to disinfect drinking water is a common practice among drinking water utilities. Ammonia is a byproduct of the use of chloramines for this purpose. Therefore, ammonia monitoring is required where the source of cooling water is disinfected using chloramines.

As a non-chemical treatment alternative, an ion generator is commonly employed in the cooling water system. DC current is passed through anodes made of copper and silver alloy. This process releases copper and silver ions into the water. The ions neutralize bacteria and algae. Other non-chemical treatment alternatives, such as magnetic descaling which reduces the scale build-up by creating alternating magnetic fields, may require alternative treatment for control of biological growth. Either a silver/copper anode unit or chlorine addition may serve this purpose.

Due to the concern that toxic effects could occur as a result of contaminated water sources from groundwater remediation wells, discharges that use groundwater remediation wells as cooling water source will be excluded from the coverage of this general permit.

The cooling water discharges normally do not include a treatment system. However, retention or settling ponds may be used to equalize the flow, lower the temperature, or to settle any possible solids that may occur in the discharge.

Effluent Limitations and Monitoring Requirements

<u>Parameter</u>	<u>Limitation</u>
Flow	0.05 MGD maximum
Temperature	Maximum ⁽¹⁾
pH	6.0 minimum, 9.0 maximum ⁽²⁾
Total Residual Chlorine ⁽³⁾	Non-detectable max.
Ammonia-N ⁽³⁾	No limit, monitoring required
Hardness	No limit, monitoring required
Total Dissolved Copper ⁽⁴⁾	No limit, monitoring required
Total Dissolved Zinc ⁽⁴⁾	No limit, monitoring required
Total Dissolved Silver ^(4,5)	No limit, monitoring required
Total Phosphorus ⁽⁶⁾	No limit, monitoring required

All monitoring is once per three months by grab sample, except for temperature which is by immersion/stabilization.

- (1) The effluent temperature shall not exceed a maximum 32°C for discharges to non-tidal coastal and piedmont waters, or 31°C for mountain and upper piedmont waters. No maximum temperature limit, only monitoring, applies to discharges to estuarine waters.

The effluent shall not cause an increase in temperature of the receiving stream of more than 3°C above the natural water temperature. The effluent shall not cause the temperature in the receiving stream to change more than 2°C per hour.

Natural temperature is defined as that temperature of a body of water (measured as the arithmetic average over one hour) due solely to natural conditions without the influence of any point-source discharge.

- (2) Where the Water Quality Standards (9 VAC 25-260-5 et seq.) establish alternate standards for pH in the waters receiving the discharge, those standards shall be the maximum and minimum effluent limitations.
- (3) Chlorine limitation of non-detectable (<0.1 mg/l) and monitoring only apply to outfalls directly discharging to surface waters and are required where the source of cooling water is chlorinated. Ammonia-N monitoring only applies where the source of cooling water is disinfected using chloramines.
- (4) A specific analysis is not specified for these materials. An appropriate analysis shall be selected from the following list of EPA methods to achieve a quantification level that is less than the target level for the material under consideration:

<u>Material</u>	<u>EPA Method</u>	<u>Target Level(µg/l)</u>
Copper	220.1, 220.2 , 200.7, 200.8, 200.9, 1638, 1640	9.2
Zinc	289.1 , 289.2, 200.7, 200.8, 1638, 1639	65.0
Silver	272.1, 272.2 , 200.7, 200.8, 200.9, 1638	1.2

Quality control/assurance information shall be submitted to document that the required quantification level has been attained.

- (5) Total dissolved silver monitoring is only required where a Cu/Ag anode is used as a non-chemical treatment alternative.
- (6) Phosphorus monitoring is only required where additive containing phosphorus is used.

Basis For Effluent Limitations And Monitoring Requirements

Technology-Based Effluent Limitations

EPA has not promulgated National Effluent Guidelines for non-contact cooling water discharges. For a category where Guidelines have been promulgated, such as steam electric generating stations, the issuance of an individual permit for the discharges would be more appropriate. (See 9 VAC 25-31-170 B. 3. a.(3)).

Water Quality-Based Effluent Limitations

Water quality-based limitations for the following three parameters are imposed in this general VPDES permit: pH, temperature, and total residual chlorine (TRC).

The pH limitation is based upon the Water Quality Standards (9 VAC 25-260-5 et seq.). There shall be no change from background conditions that would impair any uses assigned to the receiving streams.

Because of the concern of excess heat from cooling water discharges, once through systems in particular, a respective temperature limit for non-tidal coastal and piedmont waters or mountainous waters, based on the Virginia Water Quality Standards (9 VAC 25-260-50) is placed in the permit. Restrictions on rise above natural temperature and maximum hourly temperature change are also imposed. In order to ensure that the stringent temperature standards for put and take trout waters and natural trout waters will be maintained, cooling water discharges to these receiving streams will not be covered by this general permit, rather be covered by an individual permit.

The general permit contains a TRC limit of non-detectable (<0.1 mg/l) in order to ensure that the Water Quality Standards (9 VAC 25-260-140) are maintained regardless of the dilution available to the discharge. The selection of the non-detectable limit, rather than the numerical standard itself which is below the detection level, is consistent with other VPDES permits issued by the Board. Total residual chlorine limitation and monitoring are required for facilities where the following conditions prevail: 1) There is a direct discharge to surface waters; and 2) The source of cooling water is chlorinated. For cooling water discharges to the MS4s, it is anticipated that dissipation in the cooling process and chlorine demand in the MS4s will reduce the residual chlorine to "de minimis" level. For any cooling water discharges to waters containing endangered and threatened species as identified in the Water Quality Standards (9 VAC 25-260-110 C.), chlorine or any other halogen compounds are not allowed to be used in the cooling water system.

Toxics Considerations

Due to the concern that the use of corrosion inhibitors and/or biocides may be allowed through this general permit, and that metals could be discharged and thus the quality of the receiving stream could be impacted, a maximum flow of 50,000 gallons per day (0.05 MGD) is imposed in this general permit. It is the opinion of the Department that a larger discharge would need to be monitored on a more frequent basis and need additional controls, and it would be more appropriate to be covered by an individual permit. This approach is also consistent with the agency's Toxics Management Program.

Further assessment of the need for toxicity monitoring requirements for the restricted flow discharges (< 0.05 MGD) was performed by conducting an in-house review of toxicity test data for non-contact cooling water discharges (with or without additives). It showed that 94% of acute toxicity tests had an LC₅₀ greater than or equal to 100% effluent. It was concluded that these types of discharges, in general, are not acutely toxic. The report also showed that 75% of chronic toxicity tests had a no observed effect concentration (NOEC) greater than or equal to 100% effluent, which is the worst case of the instream waste concentration (IWC). These results indicate that both acute and chronic tests passed the decision criteria (75% of the tests) established by the Toxic Management Program. Therefore, additional toxicity monitoring is not imposed in this general permit.

The following parameters are required to be monitored without specific limitations: Hardness, Total Dissolved Copper, Total Dissolved Zinc, and Total Phosphorus. These parameters were selected after reviewing results of a cooling tower effluent characterization study conducted by the Hampton Roads Sanitation District (HRSD) and the Hampton Roads Planning District Commission (HRPDC). Monitoring of phosphorous is only required where additives containing such chemical are used. In order to anticipate the use of Cu/Ag anode as a non-chemical treatment method, the general permit also contains the monitoring requirement for Total Dissolved Silver wherever a Cu/Ag anode is used. Toxic effects could occur as a result of toxic source water or due to dissolution of the piping in the cooling water system. The monitoring requirements should address this concern. The monitoring requirements will provide additional effluent data which will be used to evaluate the need for future effluent limits.

Special Conditions and Their Basis

1. Restriction of floating solids and visible foam discharges

This condition is required to implement the Water Quality Standards (9 VAC 25-260-20).

2. Prohibition of any discharges other than cooling water as defined

The effluent limitations do not address pollutants typical of treated sewage, process wastewater, or storm water discharges, therefore no discharges other than cooling water as defined are permitted under the general permit.

3. Prohibition of unapproved chemical usage and prior approval requirement for change of treatment technology

In order to assure protection of water quality and beneficial uses of the waters receiving the discharge, the use of any chemical additives not identified in the registration statement, except chlorine, without prior approval is prohibited under this general permit. The general permit contains a water quality-based chlorine limitation.

The chemical and/or non-chemical treatment that are employed in the cooling water system will be identified on the registration statement and evaluated before the facility is covered under the general permit. Prior approval shall be obtained from the DEQ before any changes are made to the chemical and/or non-chemical treatment technology employed in the cooling water system, during the life of the permit term.

4. Notification of municipal separate storm sewer system

Where cooling water discharges to surface waters through a municipal separate storm sewer system, the permittee is required to notify the owner of the municipal separate storm sewer system of the existence of the discharge.

5. Requirement for proper O & M and routine inspection

Due to the concern of the lack of inspection and proper operation and maintenance of each cooling water system, a routine inspection is required by the facility personnel.

6. Notification levels

The permittee is required to report the discharge of any toxic pollutant from any activity that has occurred or will occur when that discharge, either on routine or non-routine basis, will exceed the highest of the listed notification levels. This condition is required by the VPDES Permit Regulation (9 VAC 25-31-200 A).

7. Geothermal Systems Using Groundwater and No Chemical Additives

Geothermal systems using groundwater and no chemical additives may be eligible for reduced monitoring requirements. If a geothermal system was covered by the expiring general permit, and the monitoring results from the previous permit term demonstrate full compliance with the effluent limitations, the permittee may request authorization from the department to reduce the monitoring to once in the first monitoring quarter of the first year of the new permit term.

Owners of new geothermal systems, and previously unpermitted geothermal systems that receive coverage under this permit shall submit monitoring results to the Department for the first four monitoring quarters after coverage begins. If the monitoring results demonstrate full compliance with the effluent limitations, the permittee may request authorization from the Department to suspend monitoring for the remainder of the permit term.

Should the permittee be issued a warning letter related to violation of effluent limitations, a notice of violation, or be the subject of an active enforcement action, upon issuance of the letter or notice, or initiation of the enforcement action the monitoring frequency shall revert to 1/3 months and remain in effect until the permit's expiration date.

In developing the effluent limitations and special conditions the following information was reviewed: the permitting strategies, effluent limitations, treatment technologies and special conditions that are being employed by the Department of Environmental Quality for individual VPDES permits, and other states (NJ, NC, NH, ME, MA, OR, IN, WI, and AL) for general VPDES permits issued to cooling water discharges; EPA Region II Revised Guidance for Cooling Water and Storm Water Runoff; Cooling Tower Discharge Policy and Guidance Manual published by the Hampton Roads Planning District Commission; and the results of a HRSD/HRPDC cooling tower effluent characterization study.

General Permit Coverage

The general permit has a fixed term of 5 years. Every authorization under this general permit will expire at the same time and all authorizations will be renewed on the same date, provided a complete registration statement has been filed prior to the general permit's expiration date.

All persons desiring to be covered by this general permit must register with the Department by filing a registration statement and applicable fees. The registration statement shall be submitted and a notification of coverage issued prior to any discharges or other activities for which this permit is required.

Cooling water sources that are discharging to surface waters on the effective date of this general permit and that have not been issued an individual VPDES permit, are required to submit the registration statement. Existing operations with individual VPDES permits that wish to seek coverage under the proposed general permit would have to file a registration statement at least 180 days prior to the expiration date of the individual VPDES permit. For all new cooling water dischargers that propose to discharge to surface waters and that will begin activities after the effective date of this permit, the registration statement shall be filed at least 30 days prior to the commencement of construction or operation of the cooling equipment.

This general permit does not cover activities or discharges covered by an individual VPDES permit until the individual permit has expired or has been revoked. Any person conducting an activity covered by an individual permit, which could be covered by this general permit, may request that the individual permit be revoked and register for coverage under this general permit. Antibacksliding will be considered prior to granting the coverage under this general permit. Any owner or operator not wishing to be covered or limited by this general permit may make application for an individual VPDES permit, in accordance with VPDES procedures, stating the reasons supporting the request.

This general permit does not apply to any new or increased discharge that will result in significant effects to the receiving waters. The determination is made in accordance with the State Water Control Board's Antidegradation Policy contained in 9 VAC 25-260-30 of the Virginia Water Quality Standards.

All facilities that the Department believes are eligible for coverage under this general permit will be authorized to discharge under the terms and conditions of the permit after a complete registration statement is submitted, the applicable permit fee is paid and the Department sends a copy of the general permit to the applicant. If this general permit is inappropriate; for example, effluent limitations are needed for any parameters other than flow, pH, temperature and total residual chlorine, the applicant will be so notified and the requirement that an individual permit or alternate general permit is needed will remain in effect.

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Attachment C

GENERAL PERMIT PAGES

**GENERAL VPDES PERMIT FOR NONCONTACT COOLING WATER
DISCHARGES OF 50,000 GPD OR LESS (VAG25)**

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General Permit No: VAG25
Effective Date: March 2, 2008
Expiration Date: March 1, 2013

GENERAL PERMIT FOR NONCONTACT COOLING WATER DISCHARGES OF 50,000
GALLONS PER DAY OR LESS

AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA POLLUTANT DISCHARGE
ELIMINATION SYSTEM AND THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act, as amended, and pursuant to the State Water Control Law and regulations adopted pursuant thereto, owners of noncontact cooling water discharges of 50,000 gallons per day or less are authorized to discharge to surface waters within the boundaries of the Commonwealth of Virginia, except Class V stockable trout waters, Class VI natural trout waters, and those specifically named in board regulations or policies which prohibit such discharges. Chlorine or any other halogen compounds shall not be used for disinfection or other treatment purposes, including biocide applications, for any discharges to waters containing endangered or threatened species as identified in 9 VAC 25-260-110 C of the Water Quality Standards.

The authorized discharge shall be in accordance with this cover page, Part I—Effluent Limitations and Monitoring Requirements, and Part II—Conditions Applicable to all VPDES Permits, as set forth herein.

Part I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS.

During the period beginning on the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge noncontact cooling water. Samples taken in compliance with the monitoring requirements specified below shall be taken at the following location(s): outfall(s): _____.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	Maximum	Minimum	Frequency	Sample Type
Flow (MGD)	0.05	NA	1/3 Months	Estimate
Temperature (°C)	⁽¹⁾	NA	1/3 Months	Immersion Stabilization
pH (SU)	9 ⁽²⁾	6 ⁽²⁾	1/3 Months	Grab
Ammonia-N ⁽³⁾ (mg/l)	NL	NA	1/3 Months	Grab
Total Residual Chlorine ⁽³⁾ (mg/l)	Nondetectable	NA	1/3 Months	Grab
Hardness (mg/l CaCO ₃)	NL	NA	1/3 Months	Grab
Total Dissolved Copper ⁽⁴⁾ (µg/l)	NL	NA	1/3 Months	Grab
Total Dissolved Zinc ⁽⁴⁾ (µg/l)	NL	NA	1/3 Months	Grab
Total Dissolved Silver ^{(4), (5)} (µg/l)	NL	NA	1/3 Months	Grab
Total Phosphorus ⁽⁶⁾ (mg/l)	NL	NA	1/3 Months	Grab

NL = No limitation, monitoring required

NA = Not applicable

⁽¹⁾ The effluent temperature shall not exceed a maximum 32°C for discharges to nontidal coastal and piedmont waters, or 31°C for mountain and upper piedmont waters. No maximum temperature limit, only monitoring, applies to discharges to estuarine waters.

The effluent shall not cause an increase in temperature of the receiving stream of more than 3°C above the natural water temperature. The effluent shall not cause the temperature in the receiving stream to change more than 2°C per hour. Natural temperature is defined as that temperature of a body of water (measured as the arithmetic average over one hour) due solely to natural conditions without the influence of any point-source discharge.

⁽²⁾ Where the Water Quality Standards (9 VAC 25-260) establish alternate standards for pH in the waters receiving the discharge, those standards shall be the maximum and minimum effluent limitations.

(3) Chlorine limitation of nondetectable (<0.1 mg/l) and chlorine monitoring only ~~applies~~ apply to outfalls directly discharging to surface waters where the source of cooling water is chlorinated. Ammonia monitoring only applies where the source of cooling water is disinfected using chloramines.

(4) A specific analysis is not specified for these materials. An appropriate analysis shall be selected from the following list of EPA methods to achieve a quantification level that is less than the target level for the material under consideration:

Material	EPA Method	Target Level (µg/l)
Copper	220.1, 220.2, 200.7, 200.8, 200.9, 1638, 1640	9.2
Zinc	289.1, 289.2, 200.7, 200.8, 1638, 1639	65.0
Silver	272.1, 272.2, 200.7, 200.8, 200.9, 1638	1.2

Quality control/assurance information shall be submitted to document that the required quantification level has been attained.

(5) Silver monitoring is only required where Cu/Ag anode is used.

(6) ~~Phosphorous~~ Phosphorus monitoring is only required where additive containing ~~phosphorous~~ phosphorus is used.

B. Special conditions.

1. There shall be no discharge of floating solids or visible foam in other than trace amounts.
2. No discharges other than cooling water, as defined, are permitted under this general permit.
3. The use of any chemical additives not identified in the registration statement, except chlorine, without prior approval is prohibited under this general permit. Prior approval shall be obtained from the DEQ before any changes are made to the chemical and/or nonchemical treatment technology employed in the cooling water system. Requests for approval of the change shall be made in writing and shall include the following information:
 - a. Describe the chemical and/or nonchemical treatment to be employed and its purpose; if chemical additives are used, provide the information prescribed in subdivisions 3 b, c, d, e and f;
 - b. Provide the name and manufacturer of each additive used;
 - c. Provide a list of active ingredients and percentage of composition;
 - d. Give the proposed schedule and quantity of chemical usage, and provide either an engineering analysis, or a technical evaluation of the active ingredients, to determine the concentration in the discharge;
 - e. Attach available aquatic toxicity information for each additive proposed for use; and
 - f. Attach any other information such as product or constituent degradation, fate, transport, synergies, bioavailability, etc., that will aid the board with the toxicity evaluation for the discharge.
4. Where cooling water is discharged through a municipal storm sewer system to surface waters, the permittee shall, within 30 days of coverage under this general permit, notify the owner of the municipal separate storm sewer system of the existence of the discharge and provide the following information: the name of the facility, a contact person and phone number, nature of the discharge, number of the outfalls, and the location of the discharge. A copy of such notification shall be provided to the department.
5. The permittee shall at all times properly operate and maintain all cooling water systems. Inspection shall be conducted for each cooling water unit by the plant personnel at least once per year with reports maintained on site.
6. The permittee shall notify the department as soon as they know or have reason to believe:
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - (1) One hundred micrograms per liter (100 µg/l);
 - (2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; 500 micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five times the maximum concentration value reported for that pollutant in the permit application; or

(4) The level established by the board in accordance with 9 VAC 25-31-220 F.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

(1) Five hundred micrograms per liter (500 µg/l);

(2) One milligram per liter (1 mg/l) for antimony;

(3) Ten times the maximum concentration value reported for that pollutant in the permit application; or

(4) The level established by the board in accordance with 9 VAC 25-31-220 F.

7. Geothermal systems using groundwater and no chemical additives. Geothermal systems using groundwater and no chemical additives may be eligible for reduced monitoring requirements.

If a geothermal system was covered by the previous cooling water general permit, and the monitoring results from the previous permit term demonstrate full compliance with the effluent limitations, the permittee may request authorization from the department to reduce the monitoring to once in the first monitoring quarter of the first year of this permit term.

Owners of new geothermal systems, and previously unpermitted geothermal systems that receive coverage under this permit shall submit monitoring results to the department for the first four monitoring quarters after coverage begins. If the monitoring results demonstrate full compliance with the effluent limitations, the permittee may request authorization from the department to suspend monitoring for the remainder of the permit term.

Should the permittee be issued a warning letter related to violation of effluent limitations, a notice of violation, or be the subject of an active enforcement action, upon issuance of the letter or notice, or initiation of the enforcement action the monitoring frequency shall revert to 1/3 months and remain in effect until the permit's expiration date.

Part II

Conditions Applicable to All VPDES Permits

A. Monitoring.

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.
2. Monitoring shall be conducted according to procedures approved under 40 CFR Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements.

B. Records.

1. Records of monitoring information shall include:
 - a. The date, exact place and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) and time(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the registration statement for this permit, for a period of at least three years from the date of the sample, measurement, report or request for coverage. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee or as requested by the board.

C. Reporting monitoring results.

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to the department's regional office.
2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or specified by the department.
3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under 40 CFR Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using

procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the department.

4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to provide information. The permittee shall furnish to the department, within a reasonable time, any information which the board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the department upon request copies of records required to be kept by this permit.

E. Compliance schedule reports. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized discharges. Except in compliance with this permit or another permit issued by the board, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or
2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, to animal or aquatic life, to the use of such waters for domestic or industrial consumption, for recreation, or for other uses.

G. Reports of unauthorized discharges. Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II F, or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II F, shall notify the department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the department within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of unusual or extraordinary discharges. If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the department within five days of discovery of the discharge in accordance with Part II I 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. Reports of noncompliance. The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this subsection:

- a. Any unanticipated bypass; and
- b. Any upset which causes a discharge to surface waters.

2. A written report shall be submitted within five days and shall contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
- c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The board may waive the written report on a case-by-case basis for reports of noncompliance under Part II I if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Part II I 1 or 2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II I 2.

NOTE: The immediate (within 24 hours) reports required in Parts II G, H and I may be made to the department's regional office by telephone or by fax. For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24-hour telephone service at 1-800-468-8892.

J. Notice of planned changes.

1. The permittee shall give notice to the department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

(1) After promulgation of standards of performance under §306 of Clean Water Act which are applicable to such source; or

(2) After proposal of standards of performance in accordance with §306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with §306 within 120 days of their proposal;

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or

c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2. The permittee shall give advance notice to the department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory requirements.

1. Registration statements. All registration statements shall be signed as follows:

a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits, and other information requested by the board shall be signed by a person described in Part II K 1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- a. The authorization is made in writing by a person described in Part II K 1;
- b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and
- c. The written authorization is submitted to the department.

3. Changes to authorization. If an authorization under Part II K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II K 2 shall be submitted to the department prior to or together with any reports or information to be signed by an authorized representative.

4. Certification. Any person signing a document under Part II K 1 or 2 shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to comply. The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under §307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under §405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new registration statement at least 90 days before the expiration date of the existing permit, unless permission for a later date has been granted by the board. The board shall not grant permission for registration statements to be submitted later than the expiration date of the existing permit.

N. Effect of a permit. This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State law. Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by §510 of the Clean Water Act. Except as provided in permit conditions on bypass (Part II U) and upset (Part II V), nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and hazardous substance liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under §§62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludges. Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass.

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to ensure efficient operation. These bypasses are not subject to the provisions of Part II U 2 and U 3.

2. Notice.

- a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least 10 days before the date of the bypass.

- b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II I.

3. Prohibition of bypass.

a. Bypass is prohibited, and the board may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Part II U 2.

b. The board may approve an anticipated bypass, after considering its adverse effects, if the board determines that it will meet the three conditions listed in Part II U 3 a.

V. Upset.

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II V 2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the permittee can identify the cause(s) of the upset;

b. The permitted facility was at the time being properly operated;

c. The permittee submitted notice of the upset as required in Part II I; and

d. The permittee complied with any remedial measures required under Part II S.

3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and entry. The permittee shall allow the director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this subsection, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit actions. Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits.

1. Permits are not transferable to any person except after notice to the department. Except as provided in Part II Y 2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.

2. As an alternative to transfers under Part II Y 1, this permit may be automatically transferred to a new permittee if:

- a. The current permittee notifies the department at least 30 days in advance of the proposed transfer of the title to the facility or property;
- b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
- c. The board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II Y 2 b.

Z. Severability. The provisions of this permit are severable. If any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

Attachment D

REGISTRATION STATEMENT AND INSTRUCTIONS

**GENERAL VPDES PERMIT FOR NONCONTACT COOLING WATER
DISCHARGES OF 50,000 GPD OR LESS (VAG25)**

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**VPDES GENERAL PERMIT REGISTRATION STATEMENT FOR
NONCONTACT COOLING WATER DISCHARGES ≤ 50,000 GPD (VAG25)**

Please Type or Print all information

A. APPLICANT INFORMATION

1. Name of Facility: _____
Facility Location: _____
Street No., Route No., or Other Identifier

County
2. Facility Owner: _____
Owner's Mailing Address: _____
Street or P.O. Box

City, State and Zip Code

Phone Number and Email Address
3. Is the operator of the facility also the owner? Yes _____ No _____ If "No", complete 4.
4. Name of Operator: _____
Operator's Mailing Address: _____
Street or P.O. Box

City, State and Zip Code

Phone Number and Email Address

B. FACILITY INFORMATION

1. Does this facility currently have a VPDES permit? Yes_____ No_____
If "Yes", give permit number. _____
2. List any point source discharges that are not composed entirely of cooling water

3. List type and size (tons) of cooling equipment or non-contact cooling water process:

<u>Type</u>	<u>Size (tons)</u>
_____	_____
_____	_____
_____	_____
4. Complete the following if any chemical and/or non-chemical treatment is employed in each of the cooling water systems:
 - a. Describe the chemical and/or non-chemical treatment to be employed and its purpose;

 - If chemical additives other than chlorine are used, complete b, c, d, e and f below.
 - b. Provide name and manufacturer of each additive used;

 - c. Provide list of active ingredients and percent composition;

 - d. Give the proposed schedule and quantity of chemical usage, and provide either an engineering analysis, or a technical evaluation of the active ingredients, to determine the concentration in the discharge;

 - e. Attach available aquatic toxicity information for each additive proposed for use; and

- f. Attach any other information such as product or constituent degradation, fate, transport, synergies, bioavailability, etc., that will aid the Board with the toxicity evaluation for the discharge.
5. Describe any type of treatment or retention being provided to the wastewater before discharge (i.e. retention ponds, settling ponds, etc.)

C. FACILITY SCHEMATIC DRAWING

Attach a schematic drawing of the cooling water equipment which shows the source of the cooling water, its flow through the facility, any treatment or retention provided, and each cooling water discharge point.

D. MAP

For cooling water system with a direct discharge to surface waters, attach a topographic map extending to at least one mile beyond property boundary. The map must show the outline of the facility, and the location of each of its existing and proposed intake and discharge points. Include all springs, rivers and other surface water bodies.

E. DISCHARGE INFORMATION

1. List all cooling water discharges by a number that is the same as on the map required in Question D, if applicable. Identify the source of cooling water. Estimate the maximum daily discharge flow in gallons per day (gpd). Give the name of the waterbody receiving direct discharge or discharge through the municipal separate storm sewer system.

<u>Outfall No.</u>	<u>Source</u>	<u>Max. Daily Flow (gpd)</u>	<u>Receiving Stream</u>
--------------------	---------------	------------------------------	-------------------------

_____	_____	_____	_____
_____	_____	_____	_____

2. Identify the duration and frequency of the discharge for each separate discharge point:

a. Continuous: _____

b. Intermittent:(please describe) _____

c. Seasonal: _____

3. Give the name and contact information of the owner of the municipal separate storm sewer system that receives the discharge (if applicable):

F. CERTIFICATION:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Signature _____ Date: _____

Name of person(s) signing above: _____

Printed or Typed

Title(s): _____

REQUIRED ATTACHMENTS

Aquatic Toxicity Information For Chemical Additives (if applicable)

Engineering Analysis, or a Technical Evaluation of the Active Ingredients (if applicable)

Facility Schematic Drawing

Topographic Map (if applicable)

For Department Use Only:

Basin _____ Stream Class _____ Section _____

Special Standards _____

INSTRUCTIONS FOR COMPLETING THE REGISTRATION STATEMENT FOR THE VPDES GENERAL PERMIT FOR NONCONTACT COOLING WATER DISCHARGES \leq 50,000 GPD (VAG25)

WHO MUST FILE THE REGISTRATION STATEMENT

Any facility discharging \leq 50,000 gpd of noncontact cooling water to surface waters may request coverage under this general permit by filing a complete registration statement with DEQ. Discharges through municipal separate storm sewer systems (MS4s) to surface waters are also allowable under this permit.

WHERE TO FILE THE REGISTRATION STATEMENT

The completed registration statement with original signature, a copy of the fee form, and a copy of your check for \$600 should be sent to the DEQ Regional Office serving the area where your facility is located. The original fee form and the original check should be sent to DEQ Receipts Control, P.O. Box 1104, Richmond, VA 23218. Regional office addresses can be obtained from the DEQ website at www.deq.virginia.gov, or by calling the DEQ at (804) 698-4000.

COMPLETENESS

Complete all applicable items, or enter NA for "not applicable". If more space is needed, attach extra sheets as necessary.

DEFINITIONS

"Blowdown" means a discharge of recirculating water from any cooling equipment or cooling process in order to maintain a desired quality of the recirculating water. Boiler blowdown is excluded from this definition.

"Cooling Water" means water used for cooling which does not come into direct contact with any raw product, intermediate product (other than heat) or finished product. For the purposes of this general permit, cooling water can be generated from any cooling equipment blowdown or produced as a result of any non-contact cooling process through either a single pass (once through) or recirculating system.

LINE BY LINE INSTRUCTIONS

Section A. APPLICANT INFORMATION

- Item 1: Provide the name and location of the facility where the cooling equipment is located.
- Item 2: Provide the name, mailing address, etc. of the person or corporation that owns the business. This does not have to be the owner of the building (e.g., if it is leased) but should be a person who is responsible for the business and wants coverage under the general permit.
- Item 3: If someone other than the owner listed in Item 2 runs the plant and is the person with whom business will be conducted, check **No**. Otherwise check **Yes**.
- Item 4: If **No** was checked above, indicate the name, address, etc. of the person who operates the facility.

Section B. FACILITY INFORMATION

- Item 1: Provide the permit number for any valid VPDES permit held by the facility.
- Item 2: Describe any point source discharges from your facility that are not composed entirely of cooling water.
- Item 3: List type and size (tons) of cooling equipment or non-contact cooling water process. Most cooling equipment will have a manufacturer's identification plate attached which records the Make/Model of the unit. The size of the equipment should be calculated by using the following formula and you may consult with the local representative of the manufacturer to obtain the specific data:

$$\text{Tonnage} = (\text{GPM} \cdot T) / 30$$

Where: GPM = Flow Rate (gallons per minute)

$$T = 10^{\circ}\text{F} \text{ (Standard design temperature change)}$$

- Item 4: The use of any chemical additives, except chlorine, without prior approval is prohibited under this general permit. You should list all chemicals currently used or which you anticipate to use within the life of the permit term. Prior

approval shall be obtained from the DEQ before any changes are made to the chemical and non-chemical treatment technology employed in the cooling equipment. The MSDS and available aquatic toxicity information for each additive used may be obtained from the manufacturer of the chemical additives. Attach any other information that will aid the DEQ in evaluating the toxicity of the discharge.

- Item 5: Describe any type of treatment or retention being provided to the cooling water before discharge.

Section C: FACILITY SCHEMATIC DRAWING

A schematic drawing of the cooling equipment, not of the building facility, should show the source(s) of the cooling water (i.e., municipal water supply, well, etc.), its flow through the cooling system, any treatment or retention provided, and each cooling water discharge point (the surface water or MS4).

Section D: MAP

A map is required for cooling water systems with a direct discharge to surface waters. Maps should be legible and of sufficient scale to show the required features with the site boundaries clearly marked.

Section E: DISCHARGE INFORMATION

- Item 1: List all discharge outfalls by a number, such as 001, 002, etc. Discharge to the receiving stream may be through an MS4. In such cases, identify the receiving stream with a footnote recognizing the owner of the MS4 which the outfall discharges through.
- Item 2: Identify the duration and frequency of the discharge for each separate discharge point.
- Item 3: Provide the name and contact information of the owner of the MS4 that receives the discharge, if applicable. If you discharge through an MS4 to surface waters, the permit requires you to notify the owner of the MS4 of the existence of the discharge within 30 days of coverage under the permit, and to copy DEQ with such notification.

Section F: CERTIFICATION AND SIGNATURE

All registration statements shall be signed as follows:

1. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - a. A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation, or
 - b. The manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
2. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
3. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes:
 - a. The chief executive officer of the agency, or
 - b. A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

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Attachment E

WATER PERMIT FEE FORM

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**DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
PERMIT APPLICATION FEE FORM
REVISED EFFECTIVE JANUARY 1, 2008**

INSTRUCTIONS

Applicants for individual Virginia Pollutant Discharge Elimination System (VPDES), Virginia Pollution Abatement (VPA), Virginia Water Protection (VWP), Surface Water Withdrawal (SWW), and Ground Water Withdrawal (GWW) Permits are required to pay permit application fees, except farming operations engaged in production for market. Fees are also required for registration for coverage under General Permits except for the general permits for sewage treatment systems with discharges of 1,000 gallons per day (GPD) or less and for Corrective Action Plans for leaking underground storage tanks. Except for VWP permits, fees must be paid when applications for permit issuance, reissuance* or modification are submitted. Applicants for VWP permits will be notified by the DEQ of the fee due. Applications will be considered incomplete if the proper fee is not paid and will not be processed until the fee is received. (* - the reissuance fee does not apply to VPDES and VPA permits - see the fee schedule included with this form for details.)

The permit fee schedule is included with this form. Fees for permit issuance or reissuance and for permit modification are included. Once you have determined the fee for the type of application you are submitting, complete this form. The original copy of the form and your check or money order payable to "Treasurer of Virginia" should be mailed to:

Department of Environmental Quality
Receipts Control
P.O. Box 1104
Richmond, VA 23218

A copy of the form and a copy of your check or money order should accompany the permit application. You should retain a copy for your records. Please direct any questions regarding this form or fee payment to the DEQ Office to which you are submitting your application.

APPLICANT NAME: _____ **SSN/FIN:** _____

ADDRESS: _____ **DAYTIME PHONE:** (____) _____
Area Code

FACILITY/ACTIVITY NAME: _____

LOCATION: _____

TYPE OF PERMIT APPLIED FOR
(from Fee Schedule): _____

TYPE OF ACTION: _____ New Issuance _____ Reissuance _____ Modification

AMOUNT OF FEE SUBMITTED
(from Fee Schedule): _____

EXISTING PERMIT NUMBER (if applicable): _____

DEQ OFFICE TO WHICH APPLICATION SUBMITTED (check one)

- | | | | |
|--|--|--|---|
| <input type="checkbox"/> Abingdon/SWRO | <input type="checkbox"/> Harrisonburg/VRO | <input type="checkbox"/> Woodbridge/NVRO | <input type="checkbox"/> Lynchburg/SCRO |
| <input type="checkbox"/> Richmond/PRO | <input type="checkbox"/> Richmond/Headquarters | <input type="checkbox"/> Roanoke/WCRO | <input type="checkbox"/> Virginia Beach/TRO |

FOR DEQ USE ONLY

Date: _____

DC #: _____

Original Form and Check - DEQ Receipts Control, Richmond

**Copy of Form and Copy of Check - DEQ Regional Office or Permit
Program Office**

FEE SCHEDULES

A. VPDES and VPA Permits. Applications for issuance of new individual VPDES or VPA permits, and for permittee initiated major modifications that occur (and become effective) before the stated permit expiration date. (Flows listed are facility "design" flows. Land application rates listed are facility "design" rates.) [NOTE: VPDES and VPA permittees pay an Annual Permit Maintenance Fee instead of a reapplication fee. The permittee is billed separately by DEQ for the Annual Permit Maintenance Fee.]

TYPE OF PERMIT	ISSUANCE	MODIFICATION	LAND APP MOD*
VPDES Industrial Major	\$24,000	\$12,000	
VPDES Municipal Major	\$21,300	\$10,650	\$1,000
VPDES Municipal Major Stormwater / MS4 <i>These permits are now issued by DCR.</i>	\$21,300	\$10,650	
VPDES Industrial Minor / No Standard Limits	\$10,200	\$5,150	
VPDES Industrial Minor / Standard Limits	\$3,300	\$3,300	
VPDES Industrial Stormwater	\$7,200	\$3,600	
VPDES Municipal Minor / Greater Than 100,000 GPD	\$7,500	\$3,750	\$1,000
VPDES Municipal Minor / 10,001 GPD - 100,000 GPD	\$6,000	\$3,000	\$1,000
VPDES Municipal Minor / 1,001 GPD - 10,000 GPD	\$5,400	\$2,700	\$1,000
VPDES Municipal Minor / 1,000 GPD or Less	\$2,000	\$1,000	
VPDES Municipal Minor / 1,000 GPD or Less that includes authorization for land application or land disposal of sewage sludge	\$5,000	\$1,000	\$1,000
VPDES Municipal Minor Stormwater / MS4 <i>These permits are now issued by DCR.</i>	\$2,000	\$1,000	
VPA Industrial Wastewater Operation / Land Application of 10 or More Inches Per Year	\$15,000	\$7,500	
VPA Industrial Wastewater Operation / Land Application of Less Than 10 Inches Per Year	\$10,500	\$5,250	
VPA Industrial Sludge Operation	\$7,500	\$3,750	
VPA Municipal Wastewater Operation	\$13,500	\$6,750	
VPA Municipal Sludge Operation	\$5,000	\$1,000	
All other VPA operations not specified above	\$750	\$375	

* The fee for modification of a VPDES permit due to changes relating to authorization for land application or land disposal of sewage sludge shall be \$1,000.

B. Virginia Water Protection (VWP) Permits. Applications for issuance of new individual, and reissuance or major modification of existing individual VWP permits. Only one permit application fee will be assessed per application; for a permit application involving more than one of the operations described below, the governing fee shall be based upon the primary purpose of the proposed activity. (Withdrawal amounts shown are maximum daily withdrawals.)

TYPE OF PERMIT	ISSUANCE/REISSUANCE	MODIFICATION
VWP Individual / Surface Water Impacts (Wetlands, Streams and/or Open Water)	\$2,400 plus \$220 for each 4,356 sq. ft. (1/10 acre) (or portion thereof) of incremental impact over 87,120 sq. ft. (two acres) (\$60,000 maximum)	\$1,200 plus \$110 for each 4,356 sq. ft. (1/10 acre) (or portion thereof) of incremental impact over 87,120 sq. ft. (two acres) (\$30,000 maximum)
VWP Individual / Minimum Instream Flow - Withdrawals equal to or greater than 3,000,000 gallons on any day	\$25,000	\$5,000
VWP Individual / Minimum Instream Flow - Withdrawals between 2,000,000 and 2,999,999 gallons on any day	\$20,000	\$5,000
VWP Individual / Minimum Instream Flow - Withdrawals between 1,000,000 and 1,999,999 gallons on any day	\$15,000	\$5,000
VWP Individual / Minimum Instream Flow - Withdrawals < 1,000,000 gallons on any day that do not otherwise qualify for a general VWP permit for water withdrawals	\$10,000	\$5,000
VWP Individual / Reservoir - Major	\$35,000	\$12,500
VWP Individual / Reservoir - Minor	\$25,000	\$12,500
VWP Individual/Nonmetallic Mineral Mining	\$2,400 plus \$220 for each 4,356 sq. ft. (1/10 acre) (or portion thereof) of incremental impact over 87,120 sq. ft. (two acres) (\$7,500 maximum)	\$1,200 plus \$110 for each 4,356 sq. ft. (1/10 acre) (or portion thereof) of incremental impact over 87,120 sq. ft. (two acres) (\$3,750 maximum)

C. Surface Water Withdrawal (SWW) and Ground Water Withdrawal (GWW) Permits. Applications for issuance of new individual, and reissuance or major modification of existing individual SWW permits or GWW permits.

TYPE OF PERMIT	ISSUANCE/REISSUANCE	MODIFICATION
Surface Water Withdrawal	\$12,000	\$6,000
Ground Water Withdrawal / Initial Permit for an Existing Withdrawal Based Solely on Historic Withdrawals	\$1,200	\$600
Ground Water Withdrawal	\$6,000	\$3,000

D. Registration Statements (VPDES and VPA permits) or Applications (VWP permits) for General Permit Coverage.

1. Except as specified in 2, 3, 4 and 5 below, the fee for registration for coverage under a general permit is \$600.
2. General VPDES Permit for Domestic Sewage Discharges of Less Than or Equal to 1,000 GPD (9 VAC 25-110) = \$0.
General VPDES Permit Regulation for Discharges From Petroleum Contaminated Sites (9 VAC 25-120) = \$0.

3. VWP General Permit:

TYPE OF PERMIT	ISSUANCE
VWP General / Less Than 4,356 sq. ft. (1/10 acre) of Surface Water Impact (Wetlands, Streams and/or Open Water)	\$0
VWP General / 4,356 sq. ft. to 21,780 sq. ft. (1/10 acre to 1/2 acre) of Surface Water Impact (Wetlands, Streams and/or Open Water)	\$600
VWP General / 21,781 sq. ft. to 43,560 sq. ft. (greater than 1/2 acre to one acre) of Surface Water Impact (Wetlands, Streams and/or Open Water)	\$1,200
VWP General / 43,561 sq. ft. to 87,120 sq. ft. (greater than one acre to two acres) of Surface Water Impact (Wetlands, Streams and/or Open Water)	\$1,200 plus \$120 for each 4,356 sq. ft. (1/10 acre) (or portion thereof) of incremental impact over 43,560 sq. ft. (one acre) (\$2,400 maximum)
VWP General / Minimum Instream Flow / Reservoir - Water withdrawals and/or pond construction	\$2,400

4. VPDES Storm Water General Permits (except as specified in 5 below):

TYPE OF PERMIT	ISSUANCE
VPDES General / Industrial Storm Water Management	\$500
VPDES General / Storm Water Management - Phase I Land Clearing ("Large" Construction Activity - Sites or common plans of development equal to or greater than 5 acres) <i>These permits are now issued by DCR.</i>	\$500
VPDES General / Storm Water Management - Phase II Land Clearing ("Small" Construction Activity - Sites or common plans of development less than 5 Acres) <i>These permits are now issued by DCR.</i>	\$300

5. Owners of facilities that are covered under the Industrial Activity (VAR5) and Construction Site (VAR40) storm water general permits that expire on June 30, 2004, and who are reapplying for coverage under the new general permits that are effective on July 1, 2004, must submit a fee of \$600 to reapply.

Attachment F

EXAMPLE REGISTRATION STATEMENT TRANSMITTAL LETTER

**GENERAL VPDES PERMIT FOR NONCONTACT COOLING WATER
DISCHARGES OF 50,000 GPD OR LESS (VAG25)**

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Transmittal Letter
Cooling Water Discharges General Permit Registration Statement

Regional Letterhead

Facility Name
Address

ATTN: John Contact

RE: Registration for the General VPDES Permit for Cooling Water Discharges

Dear Mr. Contact:

General VPDES permit VAG25 for noncontact cooling water discharges was adopted by the State Water Control Board at its December 4, 2007 meeting and is effective as of March 2, 2008. This general permit provides VPDES permit coverage to discharges from all qualified noncontact cooling water dischargers who submit a registration statement and are approved for coverage.

Discharges covered under the existing general permit VAG25, which expires March 1, 2008, must submit a registration statement if they wish to continue to be covered under the new general permit effective March 2, 2008. The registration statement and applicable fee must be received by the Department of Environmental Quality prior to March 2, 2008.

Individual VPDES permit holders or other cooling equipment owners must complete and submit the enclosed registration statement if they wish to be covered under this general permit instead of an individual permit. The registration must be submitted [at least 180 days prior to the expiration date of an existing individual permit] [at least 30 days prior to commencing operation of a new process] [within X days]*. If your facility qualifies for the general permit, it is recommended that you obtain coverage in order to simplify requirements for having your cooling water discharges permitted.

**Note: For non-permitted existing facilities, inform them of the requirement to obtain a permit, the consequences of discharging without permit coverage and set a time for submittal.*

Instructions for completing the registration form are included in this package. The application fee for this general permit is \$600.00, and should be submitted with the registration statement.

If you have any questions, please do not hesitate to contact us.

Sincerely,

Regional WPM Name
Water Permit Manager

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Attachment G

**EXAMPLE TRANSMITTAL LETTER FOR ISSUING
GENERAL PERMIT COVERAGE**

**GENERAL VPDES PERMIT FOR NONCONTACT COOLING WATER
DISCHARGES OF 50,000 GPD OR LESS (VAG25)**

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Transmittal Letter
Cooling Water Discharges General Permit

Regional Letterhead

Facility Name
Address

ATTN: John Contact

RE: Coverage under the General VPDES Permit for Cooling Water Discharges VAG25_____

Dear Permittee:

We have reviewed your Registration Statement received on _____, and determined that this cooling water discharge is hereby covered under the referenced general VPDES permit. The effective date of your coverage under this general permit is the effective date of the permit or the date of this letter, whichever is later. The enclosed copy of the general permit contains the effluent limitations, monitoring requirements and other conditions of coverage. ***[Include this sentence if coverage is granted prior to June 11, 2008:*** Note that the permit Part I.A Effluent Limitations and Monitoring Requirements table contains corrections to the footnotes regarding the EPA 40 CFR Part 136 test methods. These corrections were adopted by the Water Control Board on April 10th, and will become effective on June 11, 2008. The corrections should be applied immediately since they impact the laboratory test methods that are needed for proper permit sample analysis.]

In accordance with the permit you are required to submit discharge monitoring reports (DMR) to:

Regional Office Address

The reporting form[s] which specifies[y] the applicable effluent limitation and monitoring requirements is [are] included with the permit. You will be responsible for obtaining additional copies of the reporting form. A DMR is to be completed for each permitted outfall. The sampling and reporting are on a quarterly basis with the DMRs due on the tenth of January, April, July and October.

The general permit will expire on March 1, 2013. The conditions of the permit require that you submit a new registration statement at least 90 days prior to that date if you wish continued coverage under the general permit, unless permission is granted to submit a new registration statement on a later date. Permission can not be granted to submit the registration statement after the expiration date of the permit.

If you have any questions, please do not hesitate to contact us.

Sincerely,

Regional WPM Name
Water Permit Manager

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Appendix H

**November 18, 2002 Memorandum,
“VPDES General Permit for Cooling Water Discharges”**

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Memorandum

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Water Permit Programs

9th Floor, 629 East Main Street, Richmond, VA

SUBJECT: VPDES General Permit for Cooling Water Discharges

TO: Martin Ferguson

FROM: Jon van Soestbergen, P.E.

DATE: November 18, 2002

COPIES: Regional Water Permit Managers

Background

At the Water Permit Managers (WPM) meeting held in DEQ's Valley Regional Office September 25-26, 2002, an issue regarding the cooling water general permit's adequacy was brought forth. A review by one of the regional offices of data received from a select number of facilities registered under the general permit indicated exceedances of the water quality criteria for metals, particularly copper and zinc. The issue is whether current efforts to amend the regulation and reissue the general permit in its present form should be suspended, thus requiring individual VPDES permitting of all registered facilities.

The subject general permit will expire March 1, 2003 and the regulation and permit are currently going through the amendment and reissuance process. A technical advisory committee (TAC), consisting of several stakeholders and DEQ regional and central offices staff was formed and met three times during this process, although the DMR data collected and the current issue regarding metals was not evaluated and considered by the TAC. The proposed draft amended regulation and general permit were developed based on the existing general permit with consideration given to the recommendations of the TAC. The proposed general permit has been approved by EPA Region III, and has been public noticed. A public hearing was held on September 27, 2002. No comments were received at the public hearing. During the public comment period, one written comment was received pertaining to the temperature limitation in the general permit and its applicability to select discharge scenarios.

A review was performed of CEDS and information provided by the regional offices after the September WPM meeting relative to metals data obtained through DMR reporting by permitted facilities, and the following summary and recommendation is provided.

Summary

There are currently 86 facilities listed in the CEDS database, with a total of 118 outfalls, as registered under the general permit. The majority of the facilities are located in DEQ's Northern Virginia and Tidewater regions. DMR data reviewed for 19 facilities indicates that 11 suggest recurring violations of Virginia's copper criteria in the effluent. However, the data set for the vast majority of the facilities reviewed is small, and the metals data for at least some of the data collected was found to be invalid because of sampling and/or analysis procedures. The data also suggests that where the criteria is exceeded, the source of the cooling water is a municipal water supply system.

Recommendation

Staff intends to recommend the Board adopt the regulation and general permit at its December 11, 2002 meeting, to be effective March 2, 2003.

Because the problem appears to be limited to cooling water systems where the water source is a municipal water supply system, there are potential data validity problems, and the data sets collected are small, it is not recommended that the general permit be terminated or amended at this time. Rather, review of specific facilities where submitted data suggests exceedances and collection and analysis of additional data is recommended as follows:

- 1) For individual facilities scheduled for registration under the reissued general permit, perform an analysis of the available data to determine whether the data is adequate and subsequently whether an effluent limit is necessary. If so, issue an individual permit for such facilities.
- 2) Make efforts to expand upon the number of permitted facilities and continue to collect data on a quarterly basis as required by the permit.
- 3) Perform sampling inspections at all the facilities registered under the general permit and inspect the laboratories performing the analyses for the permitted facilities to maximize confidence in the data collected.
- 4) Two years prior to expiration of the proposed permit (i.e. Spring 2005 based on a March 1, 2007 expiration date), analyze the data from all permitted facilities and from permitted facilities where the water source in a municipal water supply system to determine the following:
 - a) Is a general permit appropriate for permitting of cooling water discharges?
 - b) Should facilities whose source water is from a municipal water supply system be excluded from coverage under the general permit?
 - c) Are additional effluent limitations required in the general permit for all facilities or a subset of facilities?

Implementation of the above recommendations should make it possible for DEQ staff to make a sound defensible decision regarding the metals data collected as required by the general permit and the permit's adequacy in ensuring applicable water quality criteria are met.